## **AMENDMENTS to the CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

Claims 1-7 (cancelled).

- 8. (currently amended) A method comprising:
- providing at least one declaration for an attribute to be handled as a real-time attribute associated with but external to a directory structure;
- receiving a directory access protocol request for access to one or more attribute values from said associated directory structure;
- detecting in said received request a request to access an <u>attribute</u> declared as a realtime external attribute;
- responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure;
- responsive to said resolving, converting said obtained attribute value from a first value format real-time attribute to a static attribute second value format, wherein said real-time attribute first value format is incompatible with said directory access protocol, and wherein said static attribute second value format is compatible with said directory access protocol; and
- returning to a requester said <u>converted</u> real-time <u>value</u> <u>attribute directly</u> in said <u>second format</u> <u>attribute value according to said</u> directory access protocol, <u>wherein</u> <u>while suppressing or avoiding</u> storing <u>and updating</u> of said converted <u>real-time</u> attribute value in said directory structure <u>is eliminated or avoided</u>.

Claims 9 - 11 (cancelled)

- 12. (previously presented) The method as set forth in Claim 8 wherein said detecting comprises parsing a Lightweight Directory Access Protocol requests for attribute values.
- 13. (previously presented) The method as set forth in Claim 8 wherein said returning-comprises returning said value according to a Lightweight Directory Access Protocol.

Claims 14 - 19 (cancelled).

- 20. (currently amended) A computer readable memory comprising: a computer readable memory suitable for encoding computer programs; and one or more computer programs encoded by said computer readable memory and configured to: provide at least one declaration for an attribute to be handled as a real-time attribute associated with but external to a directory structure;
  - receive a directory access protocol request for access to one or more attribute values from said associated directory structure;
  - detect in said received request a request to access an <u>attribute</u> <u>attributed</u> declared as a real-time external attribute;
  - responsive to said detecting of a request for a real-time attribute, resolve a real-time value by obtaining an attribute value from a real-time source external to said directory structure;
  - responsive to said resolving, converting said obtained attribute value from a first value format real-time attribute to a static attribute second value format, wherein said real-time attribute first value format is incompatible with said directory access protocol, and wherein said static attribute second value format is compatible with said directory access protocol; and
  - return returning to a requester said converted real-time value attribute directly in said second format attribute value according to said directory access protocol, wherein while suppressing or avoiding storing and updating of said converted real-time attribute value in said directory structure is eliminated or avoided.
- 21. (previously presented) The computer readable memory as set forth in Claim 20 wherein said detecting comprises parsing a Lightweight Directory Access Protocol requests for attribute values.
- 22. (previously presented) The computer readable memory as set forth in Claim 20 wherein said returning comprises returning said value according to a Lightweight Directory Access Protocol.

- 23. (currently amended) A system comprising a hardware means for performing a logical process, wherein said logical process comprises:
- providing at least one declaration for an attribute to be handled as a real-time attribute associated with but external to a directory structure;
- receiving a directory access protocol request for access to one or more attribute values from said associated directory structure;
- detecting in said received request a request to access an <u>attributed</u> declared as a realtime external attribute;
- responsive to said detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure;
- responsive to said resolving, converting said obtained attribute value from a first value format real-time attribute to a static attribute second value format, wherein said first value format real-time attribute is incompatible with said directory access protocol, and wherein said static attribute second value format is compatible with said directory access protocol; and
- returning to a requester said <u>converted</u> real-time <u>attribute directly</u> value in said <u>second format</u> attribute value according to said directory access protocol, <u>wherein</u> while suppressing or avoiding storing <u>and updated</u> of said converted <u>real-time</u> attribute value in said directory structure <u>is eliminated or avoided</u>.
- 24. (previously presented) The system as set forth in Claim 23 wherein said hardware means comprises at least in part a microprocessor.
- 25. (previously presented) The system as set forth in Claim 23 wherein said hardware means comprises at least in part an electronic circuit.
- 26. (currently amended) The system as set forth in Claim 25 wherein said electronic circuit is selected from a group comprising an application specific integrated circuit, and a programmable logic circuit.
- 27. (previously presented) The system as set forth in Claim 23 wherein said detecting comprises parsing a Lightweight Directory Access Protocol requests for attribute values.
- 28. (previously presented) The system as set forth in Claim 23 wherein said returning comprises returning said value according to a Lightweight Directory Access Protocol.

- 29. (new) The method of Claim 8 wherein said resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure further comprises selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking said selected real-time attribute processor, and wherein said resolving is performed by said invoked real-time attribute processor.
- 30. (new) The method of Claim 29 wherein said predetermined selection schema comprises a schema employing a variation of a name of said requested directory attribute to identify a real-time attribute processor for selection.
- 31. (new) The computer readable memory of Claim 20 wherein said resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure further comprises selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking said selected real-time attribute processor, and wherein said resolving is performed by said invoked real-time attribute processor.
- 32. (new) The computer readable memory of Claim 31 wherein said predetermined selection schema comprises a schema employing a variation of a name of said requested directory attribute to identify a real-time attribute processor for selection.
- 33. (new) The system of Claim 23 wherein said logical process resolving a real-time value by obtaining an attribute value from a real-time source external to said directory structure further comprises a logical process selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking said selected real-time attribute processor, and wherein said resolving is performed by said invoked real-time attribute processor.
- 34. (new) The system of Claim 33 wherein said predetermined selection schema comprises a schema employing a variation of a name of said requested directory attribute to identify a real-time attribute processor for selection.